

Abstract:

A projection lens system which includes a telecentric lens assembly. The lens may be used to form an image from a light source, including for example a resonant microcavity phosphor or cathode ray tube, onto a screen or display, such as in a television or a projection device. In accordance with one embodiment, a planar cooling gap or cavity (which may or may not contain a cooling liquid) is included between the imaging surface and the matching planar surface of the field lens. The use of a planar gap alleviates any temperature differentials across the cooling liquid and the lens surfaces, as compared with alternate designs that may have a non-planar gap between the faceplate and the field lens, or that use liquid lenses.